

CLAIMS

What is claimed is:

1. A chained image display apparatus comprising a plurality of image display apparatuses connected in series and controlled by a central control unit, the chained image display apparatus comprising:
 - a control signal driving unit converting a control signal inputted to the image display apparatuses into a control signal having a predetermined level and buffering the control signal having the predetermined level; and
 - an examining unit transmitting an alert signal, in response to a power supply to one image display apparatus among the plurality of image display apparatuses being interrupted, to next and previous image display apparatuses which are connected to the one image display apparatus to which the power supply was interrupted, indicating that the power supply to the one image display apparatus is interrupted.
2. The chained image display apparatuses of claim 1, wherein each of the plurality of image display apparatuses further comprises:
 - a portion receiving the control signal from the central control unit; and
 - a buffer transmitting the received control signal to the next image display apparatus.
3. The chained image display apparatuses of claim 1, wherein the next and previous image display apparatuses, receiving the alert signal output from the examining unit, transmit the alert signal to the central control unit.
4. The chained image display apparatuses of claim 1, wherein the examining unit comprises:
 - a connection unit receiving a voltage from the previous image display apparatus and supplying a supply voltage to the one image display apparatus to which the power supply was interrupted; and
 - a switching unit routing the alert signal to the next and previous image display apparatuses in response to the power supply being interrupted.

5. The chained image display apparatuses of claim 4, wherein the switching unit comprises a first switching unit routing the alert signal to the previous image display apparatus, and a second switching unit routing the alert signal to the next image display apparatus.

6. The chained image display apparatuses of claim 5, further comprising a control unit, wherein the control unit outputs a switching control signal controlling the first and second switching units.

7. The chained image display apparatuses of claim 6, wherein the control unit sends the alert signal to the examining unit.

8. The chained image display apparatuses of claim 1, wherein the connection unit connects a driving voltage output from the previous image display apparatus to the one image display apparatus having the interrupted power supply and transmits an image signal, which is buffered by the one image display apparatus having the interrupted power supply, to the next image display apparatus.

9. The chained image display apparatuses of claim 8, wherein the driving voltage output from the previous image display apparatus is provided to the next image display apparatus.

10. A method of operating a plurality of image display apparatuses connected in series and controlled by a central control unit, the method comprising:

converting a control signal inputted to the image display apparatuses into a control signal having a predetermined level, and buffering the control signal having the predetermined level; and

transmitting an alert signal in response to a power supply to one image display apparatus among the plurality of image display apparatuses being interrupted, to next and previous image display apparatuses which are connected to the one image display apparatus to which the power supply was interrupted, indicating the power supply to the one image display apparatus was interrupted.

11. The method of claim 10, further comprising transmitting the alert signal to the central control unit from the next and previous image display apparatuses.

12. The method of claim 10, further comprising:
receiving a voltage from the previous image display apparatus and supplying a supply voltage to the one image display apparatus to which the power supply was interrupted; and
routing the alert signal through a switching unit to the next and previous image display apparatuses in response to the power supply being interrupted.
13. The method of claim 12, wherein the alert signal is routed to the previous image display apparatus through a first switching unit, and the alert signal is routed to the next image display apparatus through a second switching unit.
14. The method of claim 13, further comprising controlling the first and second switching units with a control unit.
15. The method of claim 14, further comprising sending the alert signal to the examining unit from the control unit.
16. The method of claim 10, further comprising connecting a driving voltage output from the previous image display apparatus to the one image display apparatus having the interrupted power supply, and transmitting an image signal, which is buffered by the one image display apparatus having the interrupted power supply, to the next image display apparatus.
17. The method of claim 16, further comprising providing the driving voltage output from the previous image display apparatus to the next image display apparatus.
18. A system comprising a plurality of image display apparatuses connected in series and controlled by a central control unit, the system comprising:
a control signal driving unit converting a control signal inputted to the image display apparatuses into a control signal having a predetermined level and buffering the control signal having the predetermined level; and

an examining unit transmitting an alert signal, in response to a power supply to one image display apparatus among the plurality of image display apparatuses being interrupted, to next and previous image display apparatuses which are connected to the one image display apparatus to which the power supply was interrupted, indicating that the power supply to the one image display apparatus is interrupted.

19. The system of claim 18, wherein each of the plurality of image display apparatuses further comprises:

- a portion receiving the control signal from the central control unit; and
- a buffer transmitting the received control signal to the next image display apparatus.

20. The system of claim 18, wherein the next and previous image display apparatuses, receiving the alert signal output from the examining unit, transmit the alert signal to the central control unit.

21. The system of claim 18, wherein the examining unit comprises:

- a connection unit receiving a voltage from the previous image display apparatus and supplying a supply voltage to the one image display apparatus to which the power supply was interrupted; and
- a switching unit routing the alert signal to the next and previous image display apparatuses in response to the power supply being interrupted.

22. The system of claim 20, wherein the switching unit comprises a first switching unit routing the alert signal to the previous image display apparatus, and a second switching unit routing the alert signal to the next image display apparatus.

23. The system of claim 21, further comprising a control unit, wherein the control unit outputs a switching control signal controlling the first and second switching units.

24. The system of claim 23, wherein the control unit sends the alert signal to the examining unit.

25. The system of claim 18, wherein the connection unit connects a driving voltage output from the previous image display apparatus to the one image display apparatus having the interrupted power supply and transmits an image signal, which is buffered by the one image display apparatus having the interrupted power supply, to the next image display apparatus.

26. The chained image display apparatuses of claim 25, wherein the driving voltage output from the previous image display apparatus is provided to the next image display apparatus.

27. A machine readable storage medium storing a program for performing a method of operating a plurality of image display apparatuses connected in series and controlled by a central control unit, the method comprising:

converting a control signal inputted to the image display apparatuses into a control signal having a predetermined level, and buffering the control signal having the predetermined level; and

transmitting an alert signal in response to a power supply to one image display apparatus among the plurality of image display apparatuses being interrupted, to next and previous image display apparatuses which are connected to the one image display apparatus to which the power supply was interrupted, indicating the power supply to the one image display apparatus was interrupted.